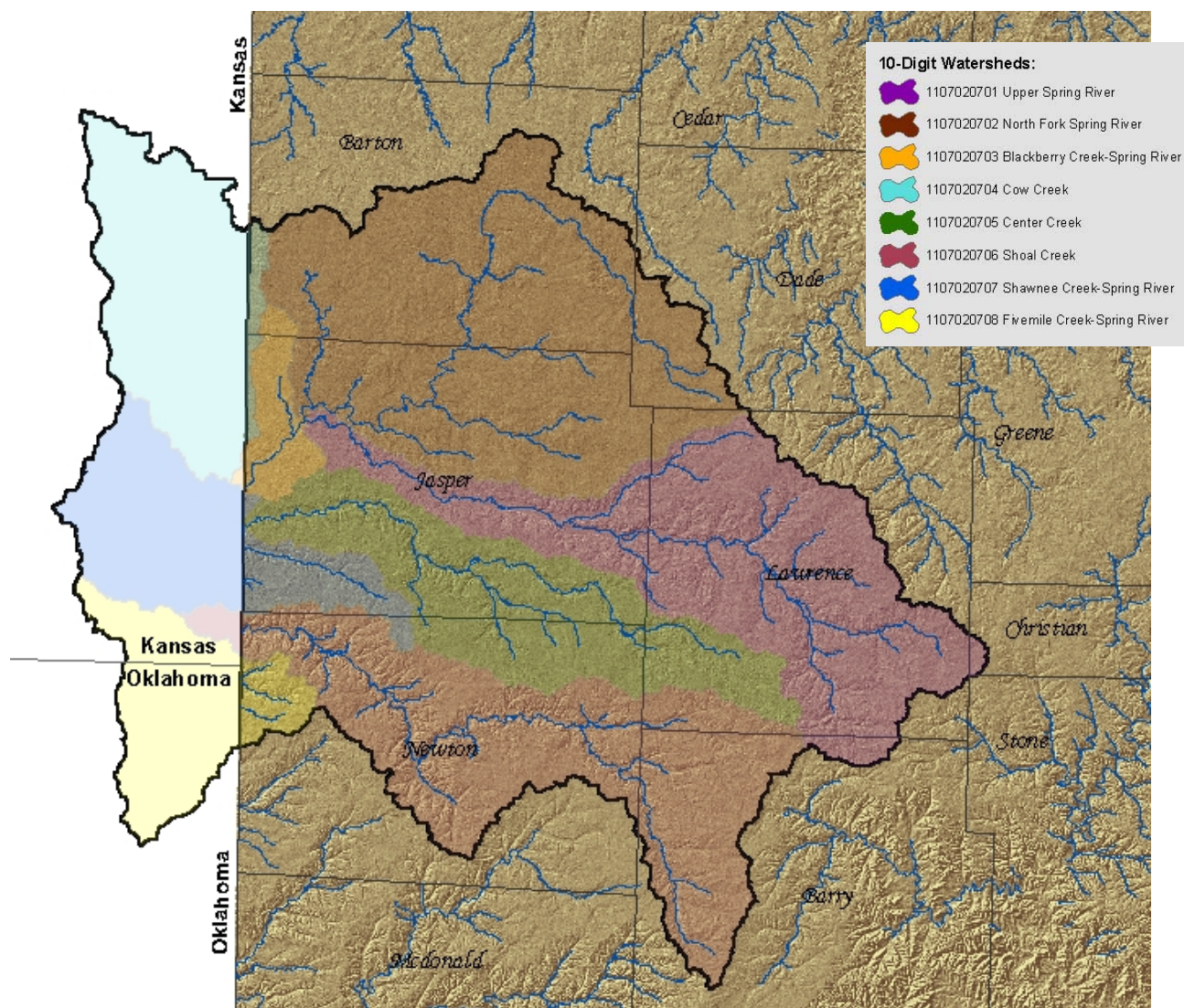




FY '06 Proposed Conservation Security Program Sub-basin Spring River – 11070207



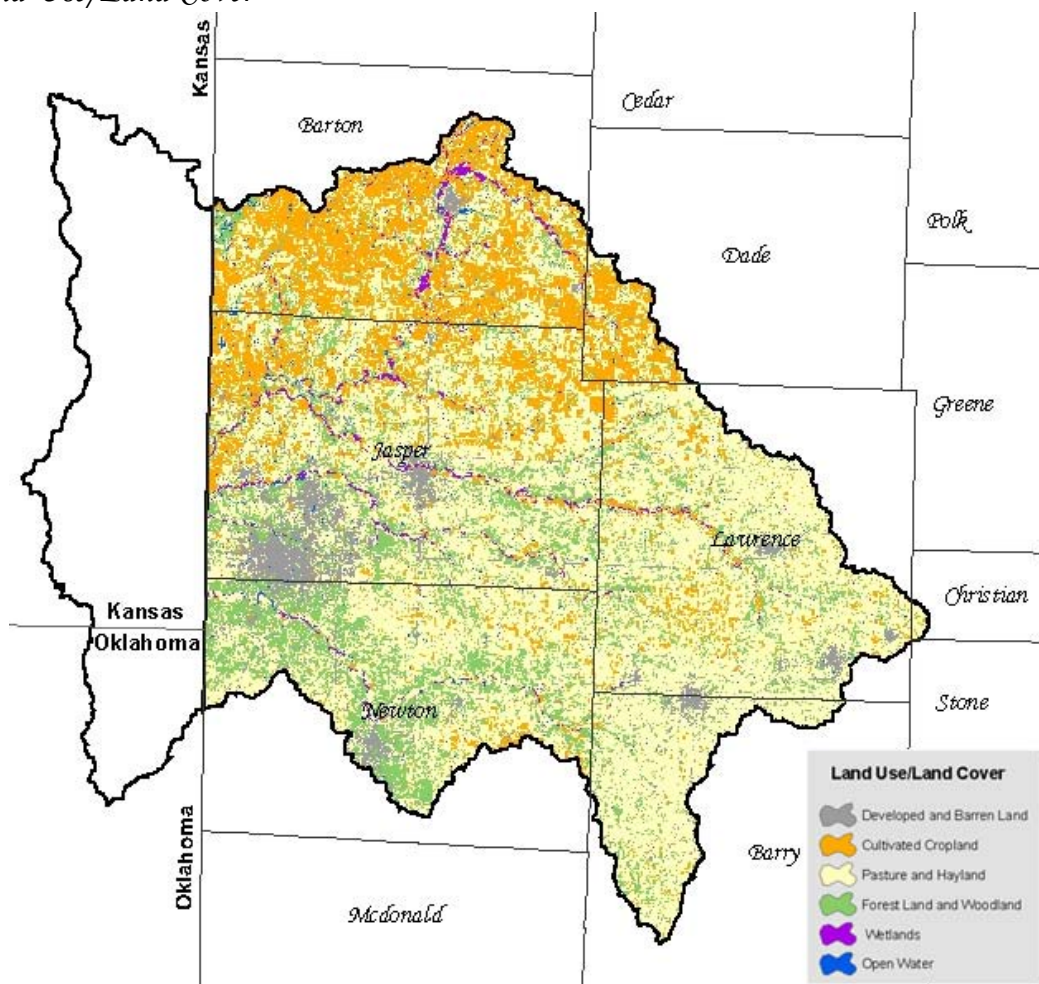
**Missouri's 8-Digit
Sub-basins**

The Spring River sub-basin in Missouri covers 2,000 square miles in the southwestern corner of the state and drains portions of 8 counties westward into Kansas and Oklahoma. The sub-basin is unevenly split by two physiographic regions. Eighty-five percent of the drainage unit is within the Springfield Plain. Fifteen percent of the sub-basin, the northern half of the North Fork Spring River watershed, is an area of transition into the Cherokee Plains, the flatter portion of the much more extensive Osage Plains region. There are no landscape features marking the boundary between these two very smooth plains and the slight decrease in elevation moving onto the Cherokee Plains from the Springfield Plain is difficult to detect. Landscape ecologists have drawn the boundary where the limestones and their residual soils of the Springfield Plain give way to the shales and sandstones and their residual soils of the Cherokee Plains. The Cherokee Plains portion of the sub-basin is a very flat upland plain with little local relief, broad stream valleys and claypan soils. The Springfield portion of the sub-basin is a flat to gently rolling plain with steep sided but shallow stream valleys and steeper-sided hills along Shoal Creek. Forty-nine percent of this rural sub-basin is pastureland and hay land and forage is the leading crop. Eighteen percent of the sub-basin is cultivated. The primary crops are soybeans, wheat, grass seed, corn, sorghum and vegetables. Forest land is the third most extensive land cover type, covering 16 percent of the drainage units surface area. Eight percent of the sub-basin is developed land, 4 percent is in CRP and 3 percent is minor land. Poultry and cattle are the primary livestock operations.

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE OF MISSOURI



Sub-basin Characteristics
Land Use/Land Cover



Data Source: Missouri Resource Assessment Partnership, Land Cover Mapping Project, 2002

Land Use/Land Cover										
Land Use/ Land Cover	Developed Land	Cultivated Cropland	Conservation Reserve Program	Noncultivated Cropland	Pastureland	Forest land	Minor land cover/uses	Water	Federal land cover/use not recorded	Rangeland
Acres	103,600	234,400	56,400	96,600	532,300	210,100	42,800	11,300	400	16,400
%	8%	18%	4%	7%	42%	16%	3%	1%	0%	1%

Data Source: 1997 NRI

Public Land Ownership						
Owner	City of Joplin	Missouri Department of Conservation	Missouri Department of Natural Resources	The Nature Conservancy	National Park Service	US Fish and Wildlife Service
Acres	24.5	13419.1	29.6	466.8	209.0	147.6

Data Source: Missouri Resource Assessment Partnership, Public Land Ownership data, 2003

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE OF MISSOURI

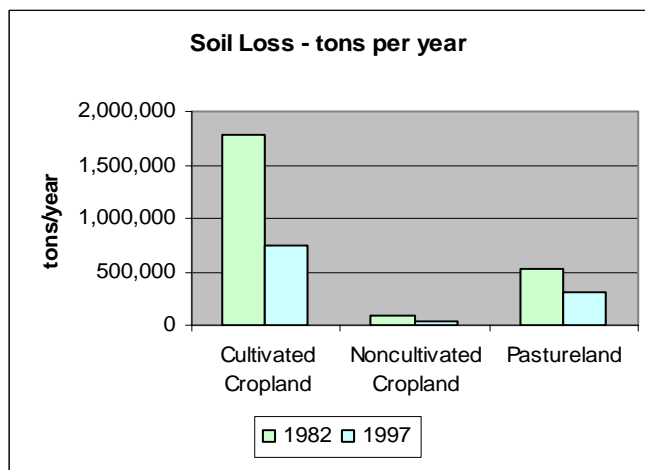
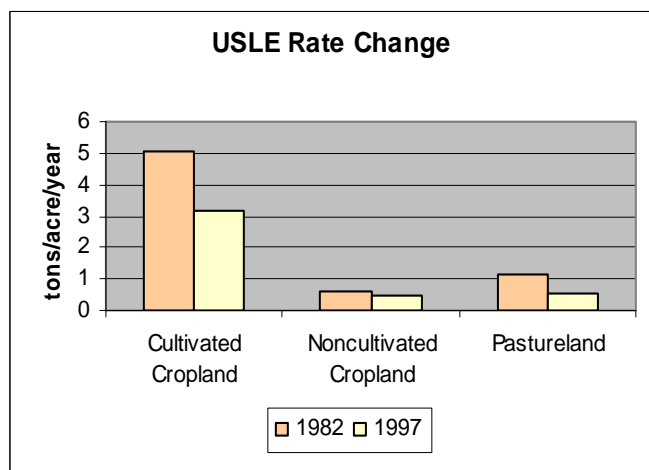


Sub-basin Characteristics - continued

Irrigated Lands								
	Irrigation Water Source					Irrigation Type		
	Well	Pond, Lake or Reservoir	Stream, Ditch or Canal	Lagoon or other waste water (not including tailwater recovery)	Combination	Gravity	Pressure	Gravity & Pressure
Acres	10,500	3,300	3,200	-	-	6,500	10,500	-
% of irrigated lands	4%	1%	1%	-	-	3%	4%	-
% of HUC	1%	0%	0%	-	-	0%	1%	-

Data Source: 1997 NRI

Soil Erosion



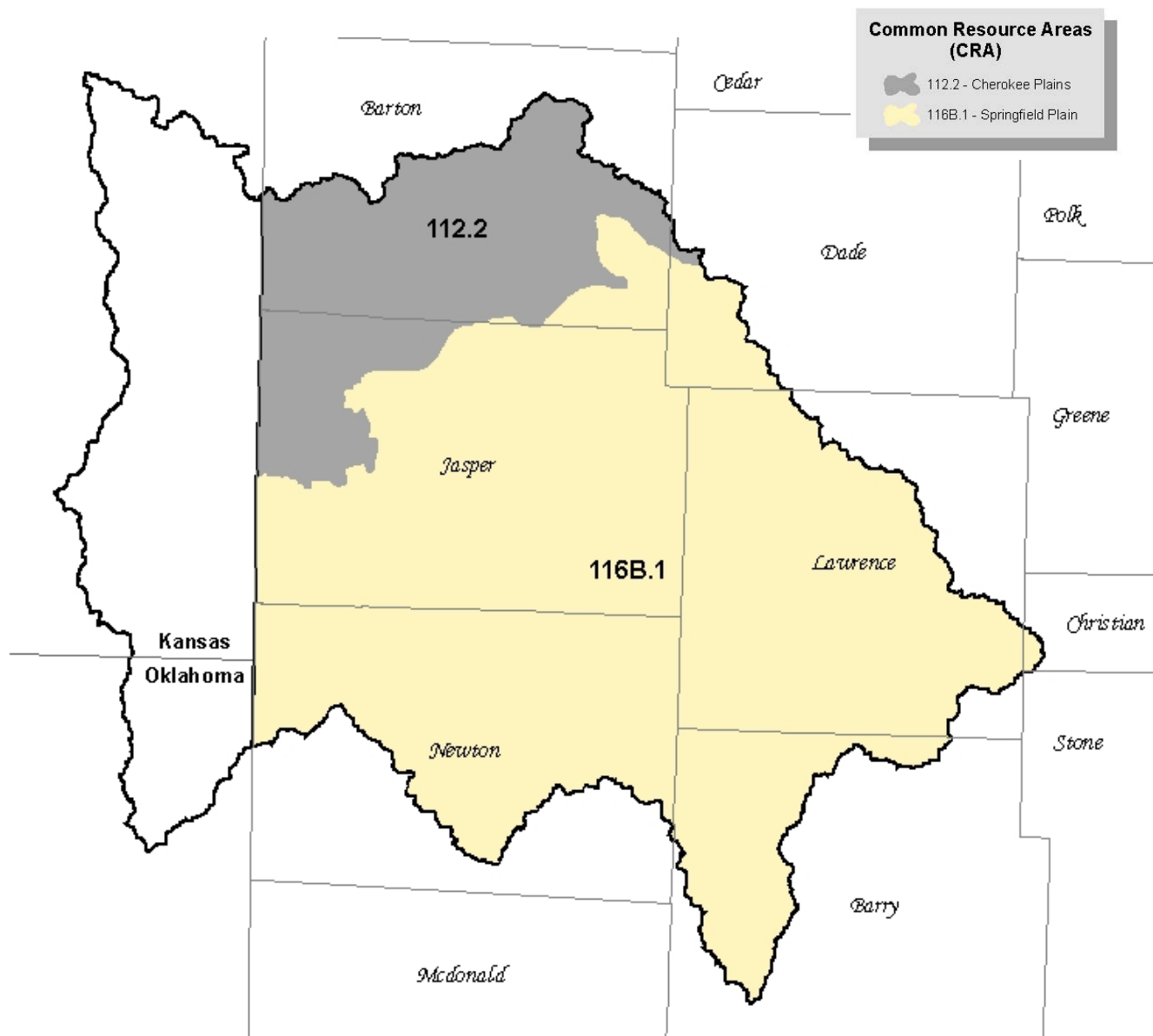
Data Source: 1997 NRI

Land Capability Class						
Class	Cultivated Cropland (acres)	Cultivated Cropland (%)	Noncultivated Cropland (acres)	Noncultivated Cropland (%)	Pastureland (acres)	Pastureland (%)
I - slight limitation	-	-	-	-	-	-
II - moderate limitation	149,400	64%	39,200	41%	163,100	31%
III - severe limitations	70,200	30%	39,000	40%	215,400	40%
IV - very severe limitations	10,000	4%	18,400	19%	125,800	24%
V - no erosion hazard, but other limitations	2,800	1%	-	-	1,300	0%
VI - severe limitations, unsuited for cultivation, limited to pasture, range, forest	2,000	1%	-	-	16,500	3%
VII - very severe limitations, unsuited for cultivation, limited to grazing, forest, wildlife	-	-	1,500	2%	7,700	1%
VIII - misc. areas have limitations, limited to recreation, wildlife and water supply	-	-	-	-	2,500	0%
Total	234,400	-	96,600	-	532,300	-

Data Source: 1997 NRI



Common Resource Areas



112.2 – Cherokee Plains: The Cherokee Plains CRA is a continuous plain of very low relief (usually less than 80 feet) on Pennsylvanian sandstones and shales. Streams have hardly dissected the surface, and valleys are topographically subdued. Wetlands are present on the wide, flat alluvial plains. Claypan soils add further distinction to the CRA. Most of the land is in pasture and cropland, with local areas of extensive strip mines.

116B.1 – Springfield Plain: The Springfield Plain CRA is a large smooth plain. Relief is generally less than 150 feet, which is accounted for by slight dissection along streams. The plain is underlain by Mississippian cherty limestones that are responsible for several areas of well-developed karst and numerous springs. Much of the subsection is pasture, but forests occur in hillier portions.

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE OF MISSOURI



Resource Concerns

Resource	Concern 1	Concern 2	Concern 3
Air	Objectionable Odors		
Animals (Domestic)	Stress & Mortality		
Animals (Fish & Wildlife)	Inadequate food/cover/water/space	Threatened & Endangered Species	
Plants	Threatened & Endangered Species	Noxious & Invasive Plants	Plant Damage (from wind erosion)
Soil (Quality)	Sheet & Rill Erosion to "T"		
Water (Quality)	Inefficient water use on irrigated lands		
Water (Quantity)	Harmful levels of pathogens (livestock source)	Excessive nutrients and organics in surface water	

Data Source: Missouri USDA-Natural Resources Conservation Service

Confined Animal Feeding Operations				
Animal Type	Beef	Poultry	Swine	Turkey
No. of Farms	3	42	1	11
No. of Animal Units	793	56,769	153	18,328

Data Source: Missouri Department of Natural Resources, National Pollutant Discharge Elimination System (NPDES) Facilities database

Threatened & Endangered Species							
Federal			State				
Aquatics (Other)	Bats	Plants	Aquatics (Other)	Bats	Birds	Mammals	Plants
2, 2	1	1	3	1	4	1	1
T, C	E	T	E	E	E	E	E

C = Candidate, T = Threatened, E = Endangered

Data Source: Missouri Department of Conservation, Heritage database

Watershed Projects, Plans, Studies & Assessments						
# of SALT Projects	Total SALT Watershed Acreage	# of 319 Projects	Total 319 Watershed Acreage	1999 EQIP Priority Areas	Unified Watershed Assessment Ranking Out of 66 Sub-basins	TMDL Development
1	92,000	8	130,598	Yes	1	In Progress

Data Sources: Soil & Water Conservation Program, Special Area Land Treatment (SALT) Program; Missouri Department of Conservation, Water Protection Program, 319 Non-point Source Implementation Program and TMDL.

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE OF MISSOURI



Resource Concerns – continued

303(d)							
% of Sub-basin in Missouri	# of 303(d) Pollutants	# of Uses Impaired	Pollutant Sources	Impaired Lake Acreage	Impaired Stream Miles	# of Public Drinking Water Intakes	# of Public Drinking Water Watersheds
80	7	5	Point, Nonpoint, Atmospheric	180	84.5	3	3

Data Source: Missouri Department of Natural Resources, Water Protection Program, Missouri 303(d) Listed Waters, 2002

Progress/Status

PRMS Data	FY99	FY00	FY01	FY02	FY03	Avg/Year
Total Acres of Conservation Systems Planned	7,273	21,793	23,356	23,767	15,513	19,640
Total Acres of Conservation Systems Applied	1,230	14,700	21,357	22,867	15,848	19,358
Conservation Treatment						
Buffers (acres)	29	2,290	967	897	917	907
Erosion Control (acres)	688	7,833	11,630	16,782	9,436	13,109
Irrigation Mgmt. (acres)	0	0	15			
Nutrient Mgmt. Applied (acres)	316	6,308	10,678	6,359	8,148	7,254
Pest Mgmt. (acres)	43	0	1,949	4,002	5,970	4,986
Prescribed Grazing (acres)	867	5,622	7,074	8,263	8,792	8,528
Tree & Shrub (acres)	19	120	536	306	927	617
Tillage (acres)	665	23,602	2,049	11,494	1,662	6,578
Waste (No.)	7	74	118	28	15	22
Wetlands (acres)	7	220	56	4	14	9
Wildlife Habitat (acres)	924	3,791	4,624	7,272	8,503	7,888

Census/Social Data

- Number of Farms 4774
- Number of Operators 7167
- Majority of Farms 50-179 acres in size
- Approximately 3,600 farms with nearly 235,000 cattle and calves.
- Nearly 56,000 hogs and pigs.
- Less than 500 farms planting soybeans on over 90,000 acres.
- Forage acres total more than 200,000 acres on about 2,700 farms.

(Numbers estimated from 2002 Ag Census data and multiplied by percent of county in watershed)

Data Source: National Ag Statistics Service, Ag Census data, 2002